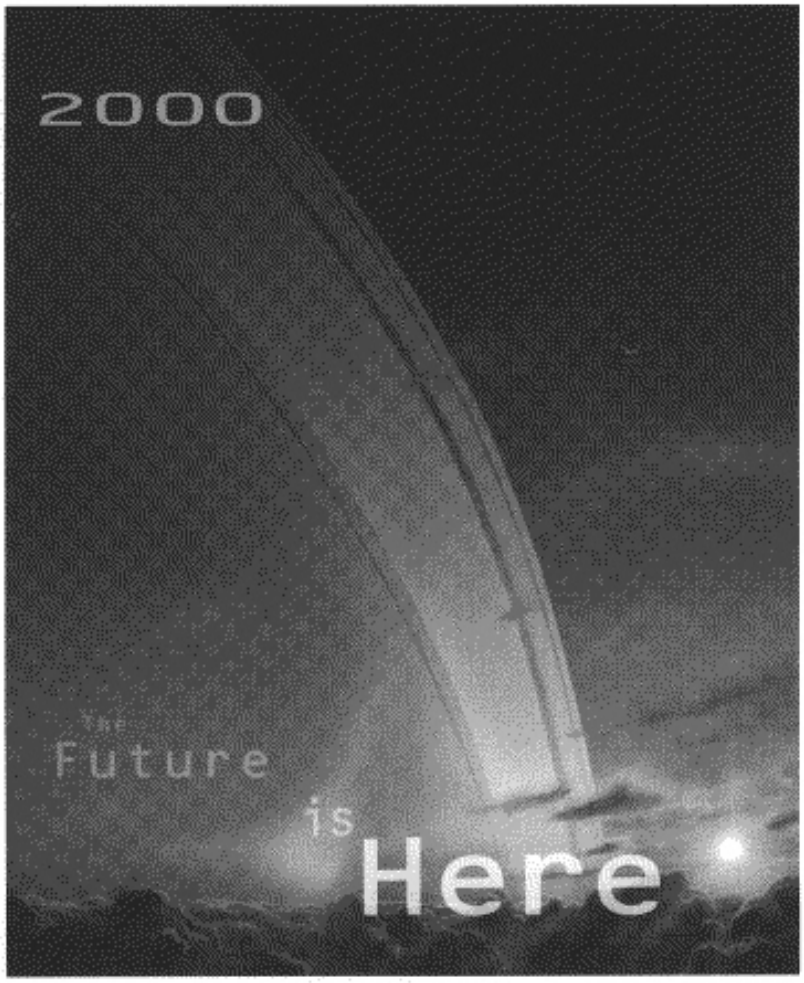
Panasonic®

Color Television/DVD Combo Operating Instructions

CT-27DC50



For assistance, please call: 1-800-211-PANA (7262) or
send e-mail to: consumerproducts@panasonic.com (USA only)

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Information For Your Safety

CAUTION:

DVD PLAYER IS A CLASS I LASER PRODUCT. HOWEVER THIS DVD PLAYER USES A VISIBLE LASER BEAM WHICH COULD CAUSE HAZARDOUS RADIATION EXPOSURE IF VIEWED DIRECTLY. BE SURE TO OPERATE THE PLAYER CORRECTLY AS INSTRUCTED.

WHEN THIS UNIT IS PLUGGED INTO THE WALL OUTLET, DO NOT PLACE YOUR EYES CLOSE TO THE OPENING OF THE DISC TRAY AND OTHER OPENINGS TO LOOK INTO THE INSIDE OF THIS UNIT.

USE OF CONTROLS OR ADJUSTMENTS OR PERFORMANCE OF PROCEDURES OTHER THAN THOSE SPECIFIED HEREIN MAY RESULT IN HAZARDOUS RADIATION EXPOSURE. DO NOT OPEN COVERS AND DO NOT REPAIR YOURSELF. REFER SERVICING TO QUALIFIED PERSONNEL.

CAUTION	-LASER RADIATION WHEN OPEN. DO NOT STARE INTO BEAM.
ATTENTION	-RAYONNEMENT LASER EN CAS D'OUVERTURE. NE PAS REGARDER DANS LE FAISCEAU.
VORSICHT	-LASERSTRAHLUNG, WENN ABDECKUNG GEÖFFNET. NICHT IN DEN STRAHL BLICKEN.
ADVARSEL	-LASERSTRÅLING VED ÅBNING. SE IKKE IND I STRÅLEN.
ADVARSEL	-LASERSTRÅLING NÅR DEKSEL ÅPNES. STIRR IKKE INN I STRÅLEN.
VARNING	-LASERSTRÅLNING NÄR DENNA DEL ÄR ÖPPNAD. STIRRA EJ IN I STRÅLEN.
VARO!	-AVATTAESSA OLET ALTTIINA LASERSÄTEILYLLE. ÄLÄ TUIJOTA SÄTEESEEN.
注意	- 当打开这里会出现激光， 请不要直视激光。
注意	- ここを開くとレーザー光が出ます。 レーザー光をのぞき込まないでください。

(LABEL INSIDE OF TV)

WARNING:

TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS EQUIPMENT TO RAIN OR MOISTURE.

WARNING
RISK OF ELECTRIC SHOCK
DO NOT OPEN
WARNING: To reduce the risk of electric shock do not remove cover or back.
No user-serviceable parts inside. Refer servicing to qualified service personnel.

The lightning flash with arrow head within a triangle is intended to tell the user that parts inside the product are a risk of electric shock to persons.

The exclamation point within a triangle is intended to tell the user that important operating and servicing instructions are in the papers with the appliance.

Information for your Safety (cont.)

FCC NOTE:

This unit has been tested and found to comply with limits for a class B digital device unit, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instruction, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

FCC Caution: To assure continued compliance, follow the attached installation instructions and use only shielded cables when connecting to other devices. Also, any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate equipment.

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Read these instructions completely before operating TV.

Contents are subject to change without notice or obligation.

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Congratulations

Your new TV/DVD combo features a solid state chassis that is designed to give you many years of enjoyment. It was thoroughly tested and tuned at the factory for best performance.

Customer Record

The model and serial number of this product are located on the back of the TV. You should note the model and serial number in the space provided and retain as a permanent record of your purchase. This will aid in identification in the event of theft or loss. Product registration is available to U.S. customers at **www.prodreg.com/panasonic**.

Model Number _____

Serial Number _____

Care and Cleaning

Screen (Turn TV Off)

- Use a mild soap solution or window cleaner with a soft clean cloth. DO NOT USE ABRASIVE CLEANERS.
- Avoid excessive moisture and wipe dry.

Cabinet and Remote Control

- ❒ Use a soft cloth dampened with water or a mild detergent solution. Do not use benzene, thinner, or other petroleum based cleaners.
- ❒ Avoid excessive moisture and wipe dry.

Specifications

Power Source **CT-27DC50 (2.0A)** **CT-20DC50 (1.7A)**	120V AC; 60Hz
Channel Capability - 181	VHF-12; UHF-56; Cable-113
3 Video Input Jacks	1Vp-p, 75 Ohm, Phono Jack Type
6 Audio Input Jacks	500mV RMS 47K Ohm
To Audio AMP Jack	0-2.0V RMS 4.7K Ohm
S-VHS Input Jack	S-Video (Y-C) Connector
Digital Optical Output	Optical Connector
Operating Humidity Range	5 to 90% RH (no condensation)

Specifications are subject to change without notice or obligation.

Installation

Television Location

This unit is intended to be used with an optional stand or entertainment center. Consult your dealer for available options.

- Avoid excessive sunlight or bright lights, including reflections.
- Keep away from excessive heat or moisture. Inadequate ventilation may cause internal component failure.
- Fluorescent lighting may reduce remote control transmitting range.
- Avoid magnetic equipment, including motors, fans, or external speakers.

Optional Cable Connections

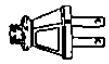
Shielded audio and video cables should be used between components. For best results:

- Use 75-ohm coaxial shielded cables.
- Use appropriate input and output connectors that match your component connectors.
- Avoid long cables to minimize interference.

AC Power Supply Cord

CAUTION: TO PREVENT ELECTRIC SHOCK MATCH WIDE BLADE OF PLUG TO WIDE SLOT OF AC OUTLET AND FULLY INSERT. DO NOT USE A PLUG WITH A RECEPTACLE OR OTHER OUTLET UNLESS THE BLADE CAN BE FULLY INSERTED TO PREVENT BLADE EXPOSURE. FOR SOME MODELS THAT ARE NON-POLARIZED, THE USE OF AN AC ADAPTOR CONNECTOR MAY BE NECESSARY.

Polarized plug



Non-Polarized plug

Cable / Antenna

For proper reception, either a cable or antenna connection is required.

Incoming Cable from Cable Company

75 Ohm VHF/UHF on back of TV

Cable Connection

Connect the cable supplied by your local cable company.

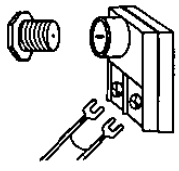
Note:*A cable converter box may be required for proper reception. Check with your local cable company for compatibility requirements.*

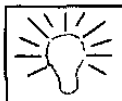
Antenna Connection

•For proper reception of VHF/UHF channels, an external antenna is required. For best reception an outdoor antenna is recommended.

Incoming Cable from Home Antenna

•Antenna Mode must be set to TV in the SETUP menu.





Cable Preset

Cable Mode is preset at the factory. Antenna users must change to Antenna Mode in the Setup Menu.

Remote Control Operation

Remote Control

POWER
Press to turn ON and OFF.

VOL
Press to adjust TV sound and navigate in menus.

TV/VIDEO
Press to select TV, Video or DVD Mode.

MUTE
Press to mute sound. Press to access and cancel (CC) Closed Caption.

"0"~ "9"
Press numeric keypad to select any channel. Selects DVD functions in DVD mode.

SKIP/REW, PLAY, SKIP/FF, CANCEL/TV/VCR, STOP, STILL/PAUSE, REC, VCR/DBS CHANNEL SLOW/ SEARCH
Component function buttons.

EUR511503

LIGHT★
Press to light remote control buttons.

TV, DVD, CBL/DBS, VCR
Press to select remote operation.

CH
Press to select next channel and navigate in menus.

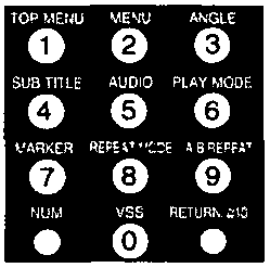
ACTION/ENTER
Press to access menus or enter selections

R-TUNE
Press to switch to previously viewed channel or video mode.

RECALL/DISPLAY
Press to display time, channel, sleep timer, and other options. Display on-screen menus in DVD mode

*To prolong the life of the batteries, turn the light off and on pressing R-TUNE and RECALL buttons, simultaneously.

Quick Reference Functional Key Chart

Key	Operates	Function
POWER	All Components	Turns On and Off selected components
MUTE	TV	Mutes TV audio
TV/VIDEO	TV	Selects the input mode
ACTION ENTER	TV DVD DBS	Activates TV menus/Enter Activates DVD Action/Selection Activates DBS menus
	TV CABLE CH DBS DVD VCR	Channel up/down, Menu navigation Channel up/down Channel up/down, Navigation up/down Navigation up/down Channel up/down
	All Components VOL VOL TV Cable VCR DBS *DVD	Search code TV Volume left/right, Menu navigation Navigation left/right
	TV VCR CABLE All Components DVD	Selects channel Selects code ***Note:*** *Refer to the DVD section in this manual for DVD buttons operation.*

*Press TV mode button to adjust volume for DVD.

Quick Reference Functional Key Chart cont.

Key	Operates	Function
RETURN≧10	DVD DBS	Return≧10 Guide
NUM	DVD DBS	Press to Access 0~9 Number buttons while in DVD mode Exit
R-TUNE	TV CABLE DBS	Previous channel
RECALL DISPLAY	TV Cable VCR DVD DBS	Display Channel, time and audio On screen display On screen display Display Program Info
TV	TV	TV mode selection for remote control
CBL/DBS	CABLE DBS	DBS/Cable mode selection for remote control
VCR	VCR	VCR mode selection for remote control
DVD	DVD	Digital Videodisc mode selection for remote control
PLAY	VCR DVD	Play Play

Quick Reference Functional Key Chart (cont.)

Key	Operates	Function
SKIP/FF	VCR DVD	Fast forward Skip search fast forward
SKIP/REW	VCR DVD	Rewind Skip search rewind
STOP	VCR DVD	Stop Stop
REC	VCR	Record
CANCEL TV/VCR	VCR DVD	Select TV/VCR mode Cancel
STILL PAUSE	VCR DVD	Pause Still
SLOW SEARCH	VCR DBS DVD	Channel up/down Page Up/Down Channel up button (search forward)) Channel down button (search backward) After pressing PAUSE key, press ▭ button for Slow Forward and ▭ button for Slow Backward. You can press these buttons five (5) times to speed up the Slow Search in either direction.

Battery Installation

Use two AA batteries:

Remove battery cover by pushing in and up near arrow.
Install batteries matching (+) and (-) polarity signs.
Replace the battery cover.

Precautions

- Replace batteries in pairs.
- Do not mix battery types (zinc carbon with alkaline).
- Do not recharge, heat, short-circuit, disassemble, or burn batteries.

Note: Incorrect installation can cause battery leakage and corrosion that will damage the Remote Control.

Programming The Remote

The Universal Remote Control can be programmed to operate many manufacturers' components, using the component function buttons for CABLE, DBS, VCR, or DVD. Follow the procedures for programming your Remote Control with or without codes for the component. **Determine the manufacturer of the component and look in the table for the code.**

With A Code

- Confirm that the external component is plugged in and on.
- Turn the component off.
- Press the **ACTION** and **POWER** button, together, **for at least 5 seconds.**
- Press appropriate component button on the Remote Control (VCR, DBS/CBL, or DVD).
- Enter the 3-digit component code using the Remote Control numeric keypad (0 ~ 9 buttons).
- Press the Remote Control **POWER** button to test the component. If the procedure was successful, the component will turn on.

Helpful Hints: Unsuccessful Code
If the component does not operate with the Remote Control, repeat the procedure using another code. (Some brands have multiple codes.) If an incorrect code is entered, or if the procedure takes longer than 30 seconds, the programming will fail.

Without A Code

This procedure searches all codes and is called the "sequence method".

- Confirm that the external component is plugged in and on.
- Turn the component off.
- Press the **ACTION** and **POWER** button, together, **for at least 5 seconds.**
- Press appropriate component button on the Remote Control.
- Press the ▷ button to move forward to the next code. Press the ◁ button to move backward.
- Press the Remote Control **POWER** button to test the component. If the procedure was successful, the component will turn on.

  Note: Repeat the above steps until the component code is found. It may take many attempts before the correct code is found.
- After the code is found, press the **ACTION** button to store the code.

Write the code numbers from tables in this space. This will serve as a reference if you need to program your Remote Control.		
CABLE BOX	VCR	DBS

Component Codes

The Universal Remote Control is capable of operating many component brands after entering code. Some components may not operate because the codes are not available due to limited memory. The Universal Remote Control does not control all features in all models.

Codes for VCR

Brand	Code
Admiral	135
Aiwa	127, 132
Akai	129, 114, 115, 116
Audio Dynamic	139, 111
Bell & Howell	105, 113
Broksonic	120, 126
Canon	123, 125
CCE	143
Citizen	106
Craig	105, 129, 106
Curtis Mathes	145, 124, 127
Daewoo	143, 124, 175
DBX	139, 110, 111
Dimensia	145
Emerson	143, 126, 119, 103, 125, 120
Fisher	105, 108, 109, 107, 113
Funai	120, 126. 127. 134
GE	124, 133, 145
Go Video	137, 151, 163
Goldstar	106
Gradiente	134, 156, 168, 170
Hitachi	100, 123, 127, 145, 168
Instant Replay	123, 124
Jensen	139
JVC	110, 111, 134, 139
Kenwood	106, 110, 111, 134, 139
LG	106
LXI	100, 105, 106, 107, 108, 109, 127
Magnavox	123, 124, 131
Marantz	110, 111, 139
Marta	106
Memorex	109, 124
MGA	138, 140, 141, 147, 148, 161
Minolta	100, 145
Mitsubishi	138, 140, 141, 147, 148, 161
Multitech	137
NEC	110, 111, 134, 139
Olympic	123, 124
Optimus	106, 121, 128, 135

Brand	Code
Orion	120, 126
Panasonic	121, 122, 123, 124
Penney	100, 105, 110, 111, 124, 139, 145,
Pentax	100, 111, 145
Philco	120, 123, 124, 126, 127, 143
Philips	123, 124, 131, 173
Pioneer	123
Proscan	100, 101, 102, 123, 124, 131, 133, 145, 146, 174
Quasar	121, 122, 123, 124
Radio Shack	105, 109, 124, 127, 133, 136, 140
RCA	100, 101, 102,123, 124, 131, 133, 145, 146, 170, 172, 174, 176
Realistic	105, 109, 124, 127, 136, 140
Samsung	102, 104, 133, 137
Sansui	120, 126, 139, 152
Sanyo	105, 109, 113
Scott	102, 104, 109, 120, 126, 138, 140, 147, 148
Sears	100, 105, 106, 107, 108
Sharp	135, 136, 137
Shintom	117
Signature 2000	127, 135
Singer	117
Sony	128, 129, 130
SV2000	127
Sylvania	1123, 124, 127, 131, 178
Symphonic	127, 168, 177
Tashiro	106
Tatung	110, 111, 139
Teac	110, 111, 127, 139
Technics	1121, 122, 123, 124
Teknika	124, 127
Toshiba	101, 146, 166
Vector Research	111
Wards	106, 109, 135, 136
Yamaha	105, 110, 111, 139
Zenith	106, 169

Codes for Cable Box

Brand	Code
ABC	224
Archer	225, 232
Cableview	205, 232
Citizen	205, 222
Curtis	212, 213
Diamond	224, 225, 232
Eagle	229
Eastern	234
GCbrand	205, 232
Gemini	222
General Instrument/ Jerrold	211, 219, 220, 221, 222, 224, 225, 226, 227
Hamlin	212, 218, 240, 241, 242, 245
Hitachi	203, 224
Macom	203, 204, 205
Memorex	230
Movietime	205, 232
Oak	202, 237, 239
Panasonic	209, 210, 214
Philips	206, 207, 228, 229, 230
Pioneer	201, 216
Pulsar	205, 232

Brand	Code
Puser	232
RCA	215
Realistic	232
Regal	212, 218, 240, 241, 242, 245, 249
Regency	234
Rembrandt	205, 232, 237
Samsung	205
Scientific Atlanta	211, 212, 213
Slmark	201, 205
Sprucer	205, 210
Stargate	205, 210
Telecaption	248
Teleview	201, 205
Texscan	244
Tocom	235, 236, 247
Unika	225, 232
Universal	222, 232
Videoway	206
Viewstar	229, 230
Zenith	200, 227
Zenith/.Drake Satellite	200

Codes for DBS

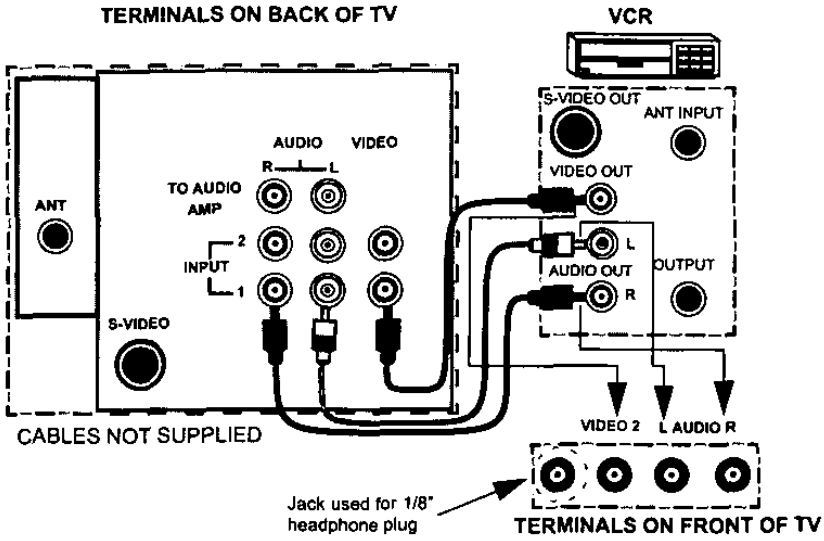
Brand	Code
Dish Network (Echostar)	105
Echostar	105
G. E.	106
Gradiente	114
Hitachi	103, 111, 112
HNS (Hughes)	103

Brand	Code
Panasonic	104
Philips	101, 102
Primestar	108
RCA	106, 109, 110, 113
Sony	107
Toss-up	100
Uniden	101, 102

Optional Equipment Connections

VCR Connection

VCRs, video disc players, video game equipment , and DSS equipment can also be connected to the video inputs. See the optional equipment manual for details.



Procedure

1. Connect equipment as shown to front or rear Audio/Video input jacks.

   Note: *Video 2 Front and Rear Audio/Video connectors cannot be operated at the same time.*

2. Select the Video mode by pressing **TV/VIDEO** button.
3. Operate optional equipment as instructed in equipment manual.

TO AUDIO AMPLIFIER

Connect to an external audio amplifier input for listening to a stereo system.

Note: *TO AUDIO AMP terminals cannot be connected directly to external speakers.*

Audio Adjustments

1. Select TV SPEAKERS ON from AUDIO menu.
2. Set amplifier volume to minimum.
3. Adjust TV volume to desired level.
4. Adjust amplifier volume to match the TV.
5. Select TV SPEAKERS OFF&VAO from AUDIO menu.
6. Volume, mute, bass, treble and balance are now controlled from the TV.

Note: *In OFF&FAO the volume is controlled by the external amplifier.*

Adjusting volume while in DVD mode

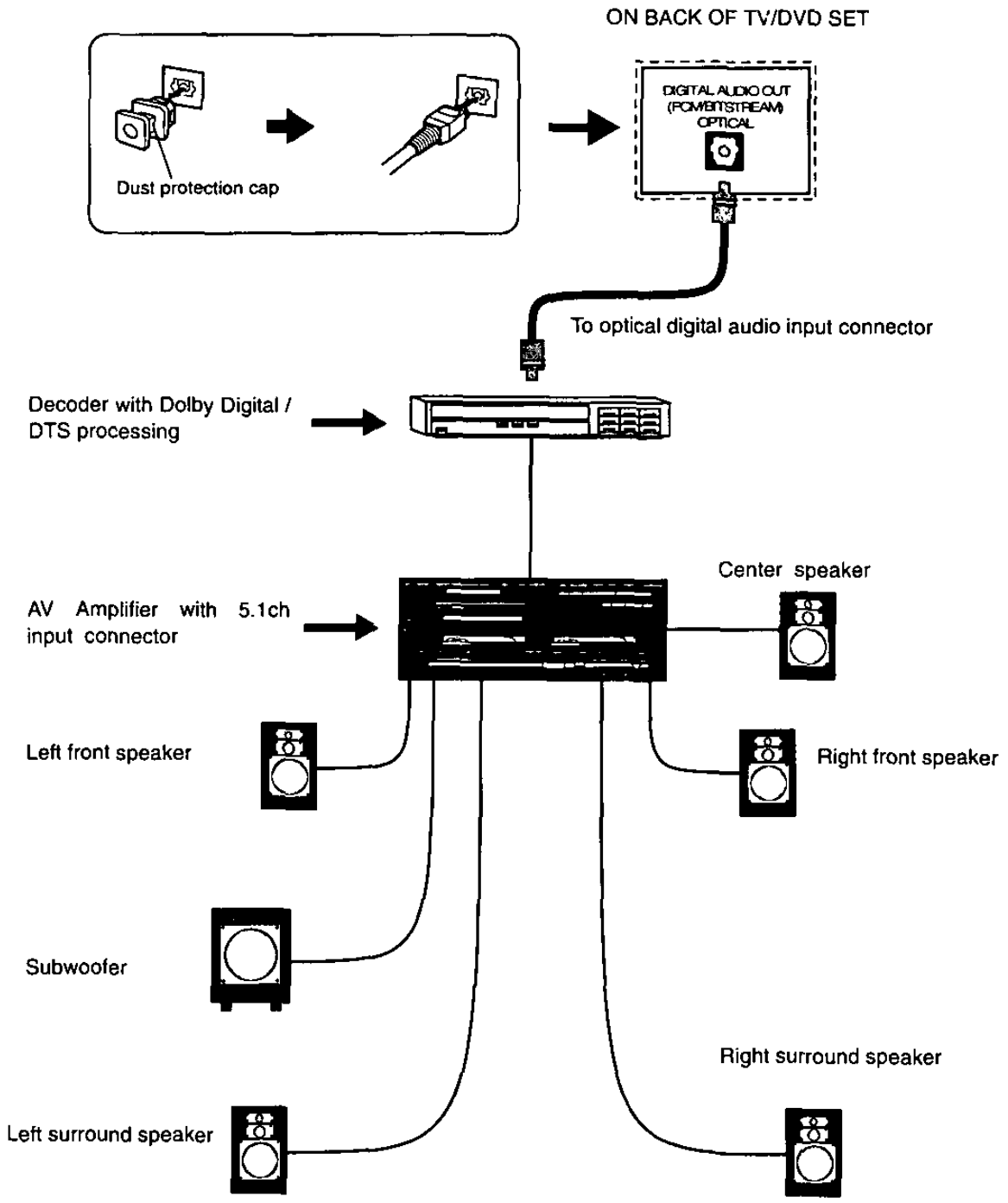
Press TV button on the remote control. Press VOL left/right to adjust the volume. After adjusting volume, press DVD button to return to DVD mode.

Dolby Digital Decoder Connection

When DVDs are recorded in Dolby* Digital or DTS, follow this diagram to connect the TV/DVD unit to a Dolby Digital decoder.

Note:

- Remove the dust protection cap from the optical digital audio output connection.
- For protecting against dust, reattach the dust protection cap when not using the connector.



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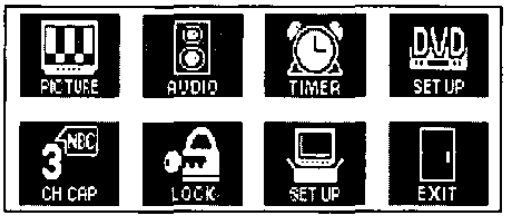
Main Menu

Main Menu



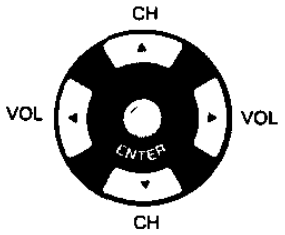
ACTION Button

Press the **ACTION** button to display the Main Menu and submenus. Press the **ACTION** button repeatedly to exit.

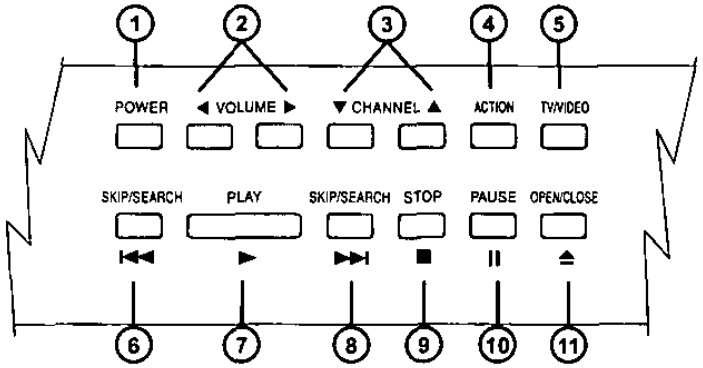
CH / VOL Buttons

Press the **CH** (channel) or **VOL** (volume) buttons to select an icon. Use the **CH** buttons to highlight the desired features. Use **VOL** buttons to select and adjust features.

Remote Action / Navigation Buttons



Front Control Panel Buttons



1. **POWER** - Press to turn ON or OFF.
2. **VOLUME** - Press to adjust sound and navigate in menus.
3. **CHANNEL** - Press to select next or previous channel and navigate in menus.
4. **ACTION** - Press to access menus.
5. **TV/VIDEO** - Press to select TV or Video modes.
6. **SKIP/SEARCH** (Reverse) - Press during play to return to previous chapter or track.
7. **PLAY** - Press to play disc.
8. **SKIP/SEARCH** (Forward) - Press during play to select next chapter or track.
9. **STOP** - Press during play to stop disc.
10. **PAUSE** - Press during play to pause disc.
11. **OPEN/CLOSE** - Press to open or close the disc tray.

Main Menu Feature Chart

MENU	DESCRIPTION
	SETUP
SET TIME	When entered, TIME will display on screen after pressing POWER button, RECALL button, or changing channels.
ANT	Choose CABLE or TV to match the signal at your antenna input.
AUTO PROG	Automatically program channels with a signal into memory.
MANUAL PROG	Manually add or delete channels from memory.
AUTO POWER ON	Select SET to power up the TV at the same time as the Cable Box or other components or select OFF.
CC MODE	Select C1 or C2 for Closed Captioning display. Select OFF to display closed captioning when MUTE button is pressed.
AUTO ASPECT	Select ON to automatically set aspect ratio 4:3 or 16:9. This feature works **only** in DVD mode.
LANGUAGES	Select English, Spanish, or French menu.
	AUDIO
AUDIO NORM	Reset BASS, TREBLE and BALANCE to factory default.
BASS	Increase or decrease the bass response.
TREBLE	Increase or decrease the treble response.
BALANCE	Emphasize the left/right speaker volume.
MODE	Select the audio mode: ❒ STEREO - Two channel audio reception. ❒ SAP - (Second Audio Program) Tune to the alternate audio channel if available in your area (bilingual or descriptive audio). ❒ MONO - One channel audio. Use when stereo signal is weak.
AI SOUND	Automatically maintain constant volume between programs and commercials.
SURROUND	Enhances audio response when listening to stereo.
TV SPEAKERS	Select TV SPEAKERS: ❒ ON - TV SPEAKERS operate normally. ❒ OFF&VAO (Variable Audio Output) - TV Speakers off — audio adjustable by TV. ❒ OFF&FAO (Fixed Audio Output) - TV SPEAKERS off — audio adjustable only by the external amplifier.

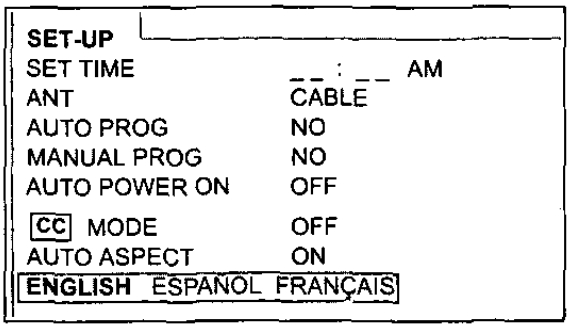
Main Menu Feature Chart (Cont.)

MENU	DESCRIPTION
	TIMER
SLEEP TIMER	Program TV to automatically turn off in 30, 60, or 90 minutes. Select NO to turn timer off.
PROGRAM TIMER	Program TV to automatically turn on and off at selected time on a selected channel, daily or only one day.
	DVD SETUP
DVD SETUP	Accessed only in DVD Mode with Disc in STOP mode. Refer to the DVD section for information on DVD setup menus.
	PICTURE
PICTURE NORM	Reset all picture adjustments to factory default settings.
COLOR	Adjust desired color intensity.
TINT	Adjust natural flesh tones.
BRIGHTNESS	Adjust dark areas for crisp detail.
PICTURE	Adjust white areas of picture.
SHARPNESS	Adjust clarity of outline detail.
	CH CAP
CHANNEL CAPTION	Provide labels for up to 30 stations using up to four characters for each station.
	LOCK
GAME GUARD	Program to prevent video games, cable box, and VCRs from being viewed. ***Note:*** *For information about Motion Picture and TV Parental Guide ratings, refer to the V-Chip section in this manual.*

Special Features

Languages

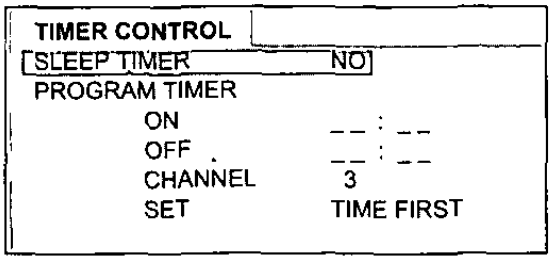
In SETUP menu, select ENGLISH, ESPAÑOL, or FRANÇAIS to change the menu language.



Timer

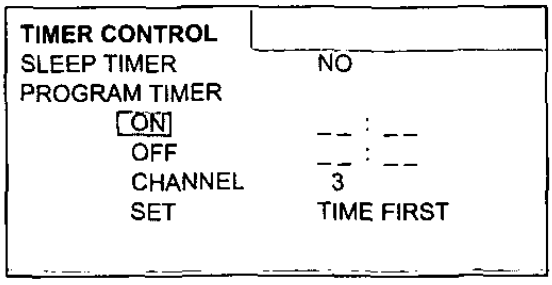
Sleep Timer

In TIMER menu, program to turn TV OFF in 30, 60, or 90 minutes. Select NO to turn off timer.



Program Timer

In Timer menu, program TV to automatically turn on and off at selected time on a selected channel, daily or one day.



Note: *TIME must be entered in the SETUP menu to operate PROGRAM TIMER.*

Timer (cont.)

Turn Off After 90 Minutes

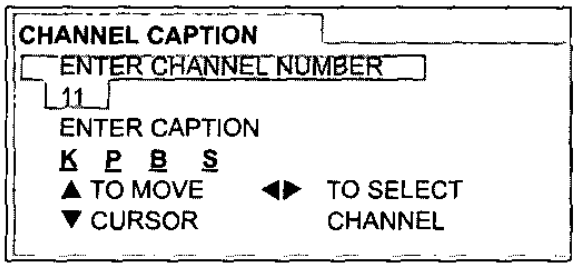
The TV automatically turns OFF after 90 minutes when turned on by the PROGRAM TIMER. If the OFF time is programmed or if a key is pressed, the automatic OFF after 90 minutes will be cancelled.

PROGRAM TIMER Activation

The PROGRAM TIMER is active when the TV is OFF or ON. The TV will switch to the selected channel at the selected time set by the PROGRAM TIMER.

CH CAP (Channel Caption)

Program channel captions (station labels) for 30 stations using up to four characters. Use the numeric keypad for entering numbers unavailable with the select arrows.



Note: *Delete channel captions by entering dashes (-) in all four character slots.*

LOCK

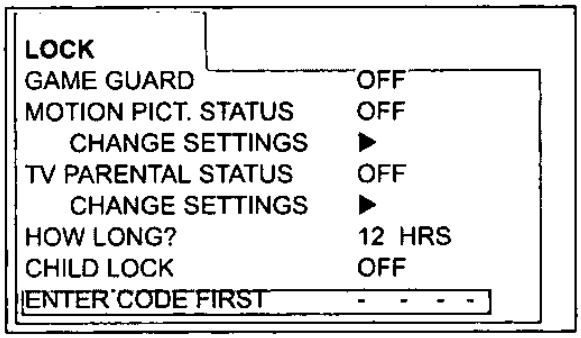
Game Guard Lock and Unlock

Select GAME GUARD to prevent video games and videotapes from being viewed.

Lock Channel 3, Channel 4, and video inputs for 12, 24, or 48 hours by entering a four-digit secret code, then selecting GAME GUARD ON.

Note: *Understand how to unlock GAME GUARD before using it. Use a code that is easy to remember or record it in a safe place.*

Unlock GAME GUARD by reentering your four-digit secret code, then selecting GAME GUARD OFF.



Note: *If **GAME GUARD is ON**, and if a blocked channel or video input is selected, the message **GAME GUARD ON** displays in the upper right corner of the TV screen.*

Unlocking

If you do not remember your code, the LOCK will unlock in 12, 24, or 48 hours depending on the current setup. Be cautious when selecting ALWAYS. If ALWAYS is selected, and you forget your secret code, the TV must be serviced by a qualified technician in order to clear the LOCK setup.

V-CHIP Operation

Motion Picture Ratings

This TV model features the "V-Chip technology" which allows you to use Motion Picture Ratings when viewing movies or video tapes. This innovation allows parents to block various types of movies and video tapes at their discretion. PIP will be blocked automatically.

Note: *Please read these instructions completely before using the V-Chip. The V-Chip allows parents to block, at their discretion, various types of movies, videos, video games and television programs.*

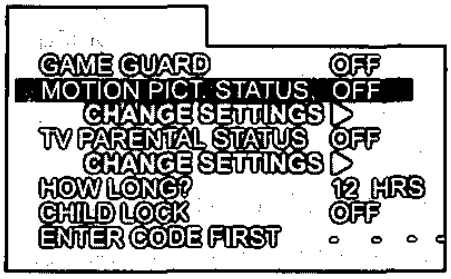
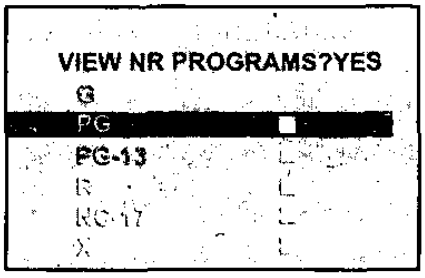


Fig. 2



R, NC-17 and X will be blocked.

Fig. 3

Procedure

1. In the Main Menu press the **CH ▲▼** or **VOL ◀▶** buttons to highlight LOCK icon.
2. Press **ACTION** button to display LOCK menu.
3. Use the numeric keypad to enter your four digit code. (*Use a code that is easy to remember and record it in a safe place.*)

Note: *When in CHANGE CODE, if you enter a different code from the one used on the LOCK menu, the new code becomes the controlling code.*

4. Press **CH ▼** button to highlight MOTION PICT. STATUS.
5. Press **VOL ◀▶** buttons to select OFF or ON.
6. Press **CH ▼** button to highlight CHANGE SETTINGS. (See Fig. 2)
7. Press **VOL ◀▶** buttons to display Motion Picture Rating menu. (See Fig. 3)
8. Press **VOL◀▶** buttons to select VIEW NR PROGRAMS? YES or NO. (Sometimes movies do not get rated for a variety of reasons. Old movies and foreign movies usually have no ratings.)
9. Press **CH ▲▼** buttons to move between different ratings. Use **VOL◀▶** buttons to select the ratings you want to block.

Note: *See the MOTION PICTURE RATINGS chart.*

10. Press **VOL◀▶** buttons to block (RED) and unblock (GREEN).
11. Press **ACTION** button repeatedly to exit menus.

V-Chip Operation (cont.)

Motion Picture Ratings Chart

NR	**CONTAINS NO RATING.** (NOT RATED) AND **NA** (NOT APPLICABLE) PROGRAMS. MOVIE HAS NOT BEEN RATED OR RATINGS DO NOT APPLY.
G	**GENERAL AUDIENCES.** All ages admitted.
PG	**PARENTAL GUIDANCE SUGGESTED.** Some material may not be suitable for children.
PG-13	**PARENTS STRONGLY CAUTIONED.** Some material may be inappropriate for children under 13.
R	**RESTRICTED.** Under 17 requires accompanying parent or adult guardian.
NC-17	**NO ONE 17 AND UNDER ADMITTED.**
X	**ADULTS ONLY**

TV Parental Guide

This TV model features the "V-Chip technology" which allows you to use TV Parental Guide ratings when viewing TV programs. This innovation allows parents to block various types of TV Programming at their discretion.

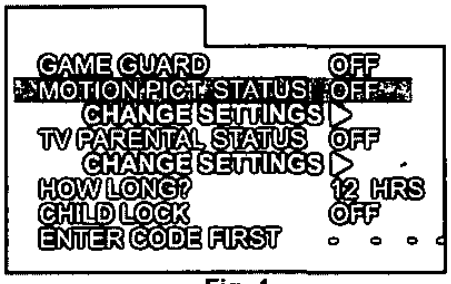


Fig. 4

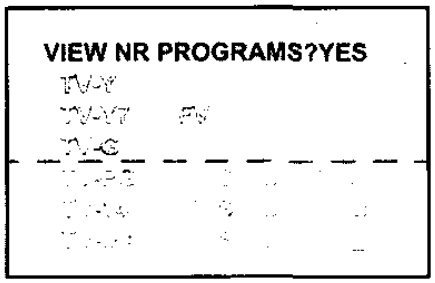


Fig. 5

Procedure

1. In the Main Menu press the **CH ▲▼** or **VOL ◀▶** buttons to highlight LOCK icon.
2. Press **ACTION** button to display LOCK menu.
3. Use the numeric keypad to enter your four digit code. (*Use a code that is easy to remember and record it in a safe place.*)
4. Press **CH ▲▼** buttons to highlight TV PARENTAL STATUS.
5. Press **VOL ◀▶** buttons to select OFF or ON.
6. Press **CH ▼** button to highlight CHANGE SETTINGS. (See Fig. 4)
7. Press the **VOL ◀▶** buttons to display TV PARENTAL GUIDE sub menu. (See Fig. 5).
8. Press the **VOL ◀▶** buttons to select VIEW NR PROGRAMS? YES or NO. **(Selecting, "Yes" NR programs will be received. Selecting "NO", NR programs will be blocked. See Customer Caution below.)**
9. Press **CH ▲▼** buttons to move between different ratings. Use **VOL ◀▶** buttons to select the ratings you want to block.

Note: ***See the TV PARENTAL GUIDE RATINGS chart.***

10. Press **VOL ◀▶** buttons to block (RED) and unblock (GREEN).
11. Press **ACTION** button repeatedly to exit menus.

TV Parental Guide (cont.)

Customer Caution

The V-Chip system that is used in this set is capable of blocking "NR" programs (non rated, not applicable and none) per FCC Rules Section 15.120(e)(2). If the option of blocking "NR" programs is chosen "unexpected and possibly confusing results may occur, and you may not receive emergency bulletins or any of the following types of programming:"

- Emergency Bulletins (Such as EAS messages, weather warnings and others)
- Locally originated programming
- News
- Political
- Public Service Announcements
- Religious
- Sports
- Weather

TV PARENTAL GUIDE RATINGS CHART

NR	**Not Rated.** SEE CUSTOMER CAUTION on previous page.
TV-Y	**All children.** The themes and elements in this program are specifically designed for a very young audience, including children from ages 2-6.
TV-Y7	**Directed to older children.** Themes and elements in this program may include mild physical or comedic violence, or may frighten children under the age of 7.
TV-G	**General audience.** It contains little or no violence, not strong language, and little or no sexual dialogue or situations.
TV-PG	**Parental guidance suggested.** The program may contain infrequent coarse language, limited violence, some suggestive sexual dialogue and situations.
TV-14	**Parents strongly cautioned.** This program may contain sophisticated themes, sexual content, strong language and more intense violence.
TV-MA	**Mature audiences only.** This program may contain mature themes, profane language, graphic violence, and explicit sexual content.
FV	**FANTASY/CARTOON VIOLENCE**
V	**VIOLENCE**
S	**SEX**
L	**OFFENSIVE LANGUAGE**
D	**DIALOGUE WITH SEXUAL CONTENT**

Blocking Message

If V-Chip is enabled and the program exceeds the rating limit set by the user, the blocking message will appear and the audio will be muted. (See Fig. 6). Enter your code if you wish to continue viewing the program. After entering the code, all locks and ratings are disabled until the TV is turned off or until all settings are off.

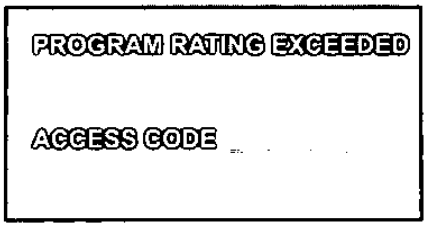


Fig. 6

Unlocking

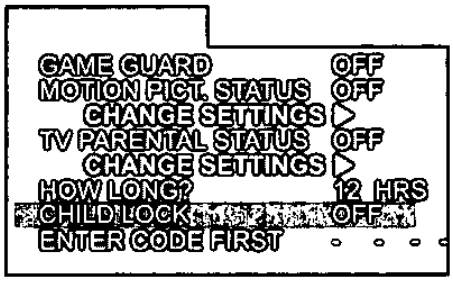
If you do not remember your code, the LOCK will unlock in 12, 24, or 48 hours depending on last setup. Be cautious when selecting ALWAYS. If ALWAYS has been selected, and you forget your secret code, the TV must be serviced by a qualified technician in order to clear the LOCK options that are set.

Resetting

If the secret code is entered to override ratings, you must reset all ratings by either reprogramming or turning the TV off.

Child Lock

This feature allows parents to lock the DVD disc tray to prevent children from playing DVDs or CDs. To unlock disc tray select OFF.



Procedure

1. In the Main Menu press the **CH ▲▼** or **VOL ◀▶** buttons to highlight LOCK icon.
2. Press **ACTION** button to display LOCK menu.
3. Use the numeric keypad to enter your four digit code (*Use a code that is easy to remember and record it in a safe place*).
4. Press the **CH ▲▼** buttons to highlight CHILD LOCK.
5. Press **VOL ◀▶** buttons to select DVD or OFF.
6. Press **ACTION** button repeatedly to exit menus.

Note: ***When CHILD LOCK is set to DVD, all keys for the DVD player on the control panel are locked.***

Remote Control Buttons - DVD Operation

DVD Quick Reference Functional Chart

Remote Key	Description
TOP MENU	Displays the complete menu of the particular DVD with top most item highlighted.
MENU	Press MENU during play. The DVD menu available on the disc is now displayed. Press MENU again to resume play.
ANGLE	Press ANGLE during play. Number of angle being played back is displayed. Press ▲▼until the preferred angle is selected. Press ANGLE or ENTER to clear the display.
SUBTITLE	Press SUBTITLE during play. When no subtitles are available, "--" will be displayed instead of the language number. Press ▲▼until the preferred language is selected. Press SUBTITLE or ENTER to clear the display.
AUDIO	Press AUDIO during play. When no audio sound track is available, "-" will be displayed instead of the language number. Press ▲▼until the preferred language is selected. Press AUDIO or ENTER to clear the display.
PLAY MODE (VIDEO CD / CD)	Press PLAY MODE in the stop mode. The program playback screen appears on the TV screen. Press ▲▼ to select the preferred track number. Press ENTER to store in memory. Repeat to program up to 18 tracks. Press PLAY to begin the programmed sequence. To return to normal play, press STOP, PLAY MODE twice, and PLAY.
MARKER	Press MARKER during play. The marker screen appears on the TV screen. "*" indicates no marker has been stored yet. Press ENTER during play at the starting point to be viewed (listened to) again. Up to 5 markers can be stored in the memory. Press MARKER to clear the display.
REPEAT MODE	Press REPEAT MODE during play. Each time this button is pressed, the TV screen changes and the disc will repeat a chapter or title (DVD). To return to normal play, press REPEAT MODE several times until "OFF" is displayed.

DVD Quick Reference Functional Chart (Cont.)

Remote Key	Description
A-B REPEAT	Press A-B REPEAT during play at the point where repeat play is to start (A). Press A-B REPEAT at the point where repeat play is to be concluded (B). To return to normal play press A-B REPEAT several times until "OFF" is displayed.
VSS	This set can reproduce a virtual surround sound effect. Press VSS during play.
NUM	Press NUM key in DVD mode to access the number keys.
RETURN≧10	When the MENU continues onto another screen, press RETURN to return to the previous menu screen. This key also lets you enter a number equal to or greater than 10 while in the DVD mode.
CANCEL TV/VCR	Press CANCEL in DVD mode to cancel selections.
STOP	Press STOP in DVD mode to stop play.
STILL PAUSE	Press STILL during play, the DVD player will be in the still picture mode. Press PAUSE during play, the CD player is placed in the pause mode. Press PLAY to resume the normal operation.
PLAY	Press PLAY in DVD mode to start play.
VOL VOL	Adjusting volume in DVD mode: • Press TV mode button. • Press VOL left/right to adjust volume. • Press DVD mode button.
SKIP/REW	Press SKIP/REW in DVD mode to skip search or fast rewind (search or fast rewind with compact disc).
SKIP/FF	Press SKIP/FF in DVD mode to skip search or fast forward (search or fast forward with compact disc).
SLOW SEARCH	Press SLOW/SEARCH in the STILL mode to view slow motion play in reverse or forward direction. Press PLAY to resume normal operation.

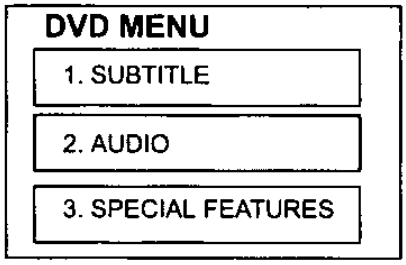
TOP MENU

Press **TOP MENU** during Play. This will bring up the DVD menu with the top menu highlighted. Press ENTER button twice to exit TOP MENU.

MENU

DVDs may offer special menus. These menus may include guides to unique contents, audio subtitle, languages, special features, etc. Contents and operation may vary depending on the disc. Following steps show the basic procedure.

1. Press **MENU** during play. The menu of the particular disc is displayed.

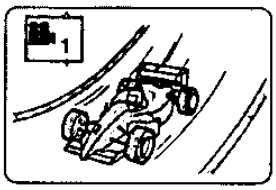


2. Press cursor buttons (◀▶▲▼) to select the desired feature.
3. If the selected feature has sub-menu, repeat step 2 to select the desired feature from the sub-menu.
4. Press **ENTER**. The desired feature is activated. Press **MENU** again resumes play from the scene when MENU was first pressed.

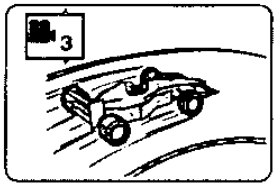
ANGLE

Viewing from another angle (DVD)
Some DVDs may contain scenes which have been shot simultaneously from a number of different angles. For these discs, the same scene can be viewed from each of these different angles using the ANGLE button. (The recorded angles differ depending on the disc used.)

Press ANGLE during play.
Number of angle being played back.



Press the cursor buttons ▲▼ until the preferred angle is selected.



Pressing the numeric buttons also changes the angle.

- Press ANGLE or ENTER to clear the display.

Note: *This function only works for titles having scenes recorded at different angles.*

For your reference:

- The angle number can be programmed beforehand with some DVDs; the angle will be switched to the selected number when ANGLE lights up.

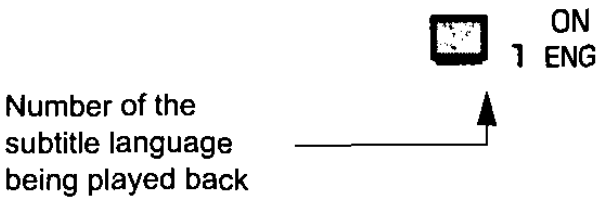
Note: *When ⊘ appears on the TV screen while a button is being pressed, it means that the corresponding operation is unavailable on the disc.*

SUBTITLE

Changing subtitle language (DVD)

It is sometimes possible to change subtitles to a different language. This operation works only with discs on which multiple subtitle languages are available.

Press **SUBTITLE** during play.
When no subtitles are available, "--" will be displayed instead of the language number.



Press the cursor buttons (▲▼) until the preferred language is selected.
Pressing the numeric buttons also selects the subtitle language.
Press **ENTER** to clear the display.

To display subtitles or clear screen:
Press the cursor buttons ◀▶ to select ON or OFF.
Note:

- In some cases, the subtitle language will not change to the selected one immediately.
- When a disc supporting closed captioning is played, subtitles and closed captioning may overlap on the TV screen. In this case, turn the subtitle off.

For your reference:

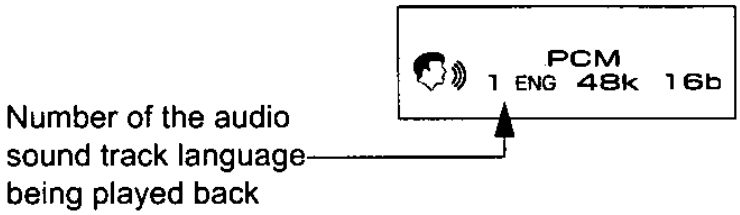
- When the preferred language is not selected even after pressing the cursor buttons ▲▼ several times, it means that the language is not available on the disc.
- When the power is turned on or the disc is removed, subtitles appear in the language selected at the initial settings. If this language is not recorded on the disc, subtitles appear in the disc's priority language.

AUDIO

Changing audio sound track language (DVD)

It is sometimes possible to change the audio sound track to a different language. This operation works only with discs on which multiple audio sound track languages are available.

Press **AUDIO** during play.
When no audio sound track is available, "-" will be displayed instead of the language number.



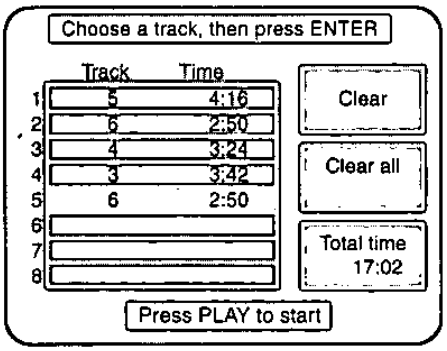
Press the cursor buttons (▲▼) until the preferred language is selected.
Pressing the numeric buttons also changes the audio sound track language.
Press **ENTER** to clear the display.
For your reference:

- When the preferred language is not selected even after pressing the cursor buttons ▲▼ several times, it means that the language is not available on the disc.
- When the power is turned on or the disc is removed, the language heard is the one selected at the initial settings. If multiple languages are not available on the disc, only the language recorded on the disc will be heard.

PLAY MODE

PLAY MODE (VIDEO CD/CD) feature lets you play the tracks in an order you specify.

Press **PLAY MODE** in the stop mode.
The program playback menu appears on the TV screen.
Press **ENTER**, then cursor buttons (▲▼) to select the preferred track number or press **NUM** key and the numeric buttons on the remote control to enter the preferred track number.



Press **ENTER**. The selected track is stored in memory.

Play Mode (cont.)

Repeat steps to select another track.

Press PLAY.

Play now begins in the programmed sequence.

After playback

Play is stopped and the program playback menu is displayed.

To return to normal play

- Press STOP. (Program play is suspended.)
- Press PLAY MODE twice.
- Press PLAY.

Normal play begins from the beginning of the disc. (The content of the program is still retained in the memory.)

Clearing the program

When the program playback menu is displayed.

- To clear the last program one by one:

Move to "Clear" and press ENTER.

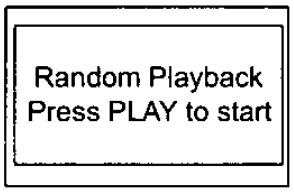
- To clear all the programs:

Move to "Clear All" and press ENTER. (The programs are also cleared when the player is turned off, or OPEN/CLOSE is pressed.)

Random Play (Video CD/CD)

The player plays the tracks on the disc in random order.

- Press PLAY MODE twice in STOP mode. The random playback screen appears on the screen.



- Press PLAY.

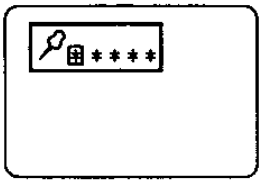
To exit the random playback mode and return to normal operation:

- Press STOP. (Random play is suspended.)
- Press PLAY MODE once.
- Press PLAY. (Normal play begins from the beginning of the disc.)

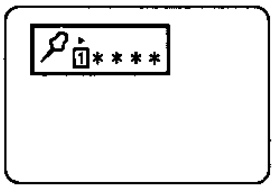
MARKER

To Store markers in memory to be viewed (listened to) again.

Press MARKER during play.
The MARKER menu appears on the TV screen.



"*" indicates no marker has been stored yet.
Press ENTER during play at the starting point to be viewed (listened to) again.



Indicates MARKER 1 is stored in the memory
(If **ENTER** is pressed where any number is already displayed, the previous starting point will be replaced by the new one.)
Up to 5 markers can be stored in the memory.
Press **MARKER** to clear the display.

Recalling/clearing a marker

Press MARKER during play.
Press the cursor buttons (◀▶) to select the marker to be recalled/cleared.
Press the cursor button (▲) to recall a marker.

or

Press CANCEL to clear a marker.
Play resumes from the point corresponding to the selected marker.

or

The selected marker is cleared. (Press **MARKER** to clear the display.)
Note:

- Some subtitles recorded around the marker may fail to appear. (DVD)
- These operations do not work with an interactive DVD or during menu play of a Video CD with playback control.

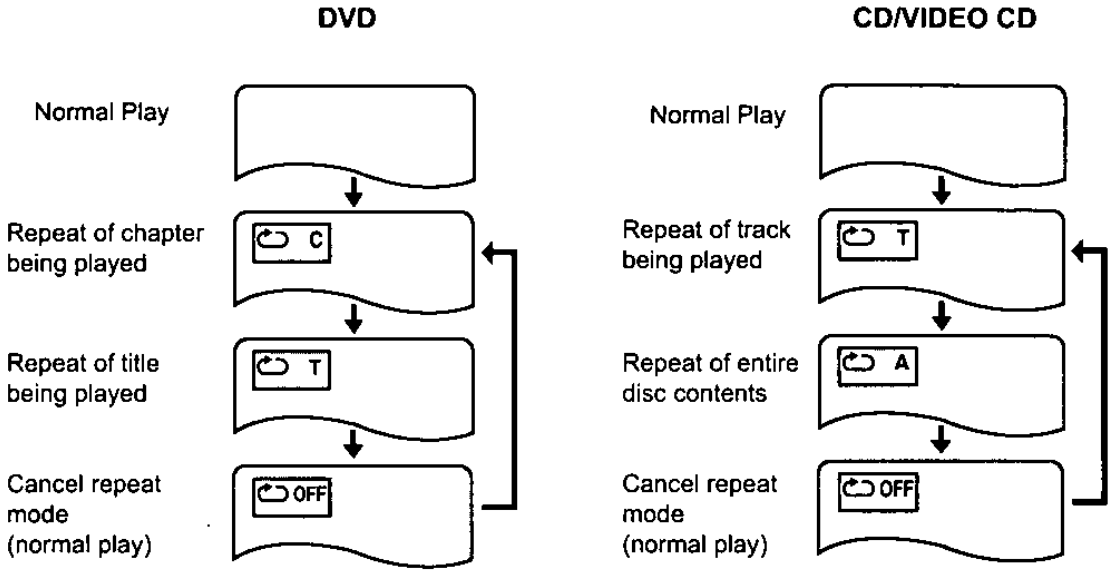
For your reference:

- All the markers are cleared when the player turned off, or **OPEN/CLOSE** is pressed.

REPEAT MODE

Repeat play/viewing (listening)

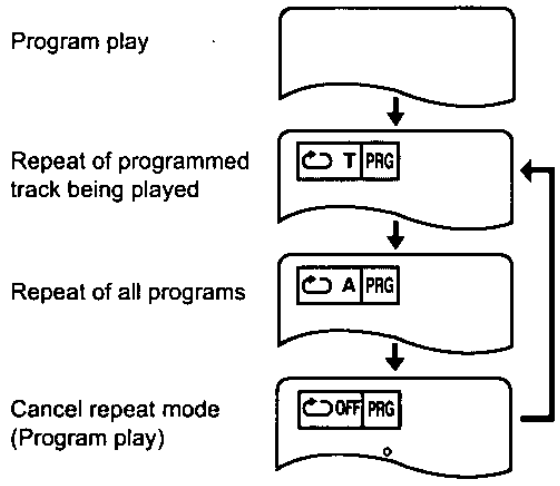
Press **REPEAT MODE** during play.
Each time this button is pressed, the TV screen changes as shown below and the disc will repeat a chapter or title (DVD) or a track or the entire disc (Video CD/CD).



To return to normal play
Press REPEAT MODE several times until "OFF" is displayed.
Notes:

- Repeat play may not work correctly with some DVDs.
- Repeat play does not work with an interactive DVD or during menu play of a Video CD with playback control.

To enjoy program repeat play while playing CDs.
If REPEAT MODE is pressed during program play the display changes as follows:

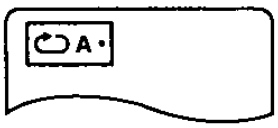


To return to program play
Press REPEAT MODE several times until "OFF" is displayed.

A-B REPEAT

A-B Repeat allows you to repeat sections between two specific points (A-B repeat)

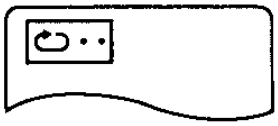
Press A-B REPEAT during play at the point where repeat play is to start (A).



Press A-B REPEAT at the point where repeat play is to be concluded (B).

Repeat play of the selection between points A and B.

To return to normal play
Press A-B REPEAT several times until the following display is shown.



Notes:
- A-B repeat play does not work with an interactive DVD.
- Some subtitles recorded around point A or B may fail to appear. (DVD)
- A-B repeat play works only within a title (DVD) or a track (Video CD/CD).

For your reference:
- If the title/track is completed before end location B is specified, the end point of the title/track serves as end location B.

VSS

Reproducing Virtual Surround Sound effect.

Dolby Digital DVD

This set can reproduce a virtual surround sound effect which provides sound as if heard from the front speakers located at the horizontally further position or heard from nonexistent speakers even when only a 2-channel stereo system is connected (for playback of Dolby Digital DVD software (2ch and above) only.

Press VSS during play.

- Select OFF to hear normal audio range.
- Select VSS 1 to hear natural effect.
- Select VSS 2 to hear enhanced effect.
-

Notes:

- The virtual surround sound effect may not work with some Dolby Digital 2.1ch or 3.1ch DVDs. Additionally, this effect may not work properly with some Dolby Digital DVDs other than 2.1ch or 3.1ch, depending on the software.
- Turn off other surround effects when using this virtual surround sound effect.

For your reference:
For optimum effect, it is recommended that the distance between the TV set and the listening position be about 3 or 4 times the distance between the right and left front speakers.

Differences between VSS 1 and VSS 2

	VSS 1	VSS 2
Dolby Digital DVD (2 ch)	It sounds as if sound were heard from the front speakers located at a wide separation.	It sounds as if sound were heard from the front speakers located at an even wider separation.
Dolby Digital DVD (3-5.1ch)(Surround signal recorded)	It sounds as if sound were heard from nonexistent surround speakers.	In addition to the effect described on the left, it sounds as if sound were heard from the front speakers located at a widely separated position.

DVD Operation

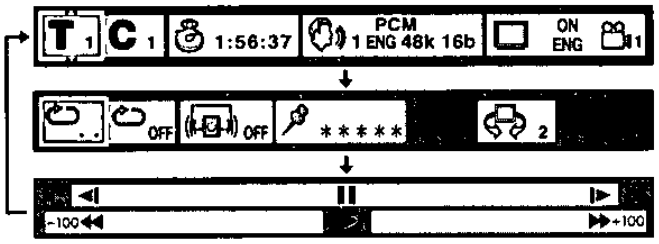
General information about On-Screen Menu Icons

The DVD player in this unit features On-Screen Menu Icons providing various functions. A banner will be displayed on the television screen by pressing the **DISPLAY** on the remote control. Operating the cursor buttons and **ENTER** button on the remote control will show the following disc information:

- Title/chapter/track numbered playing time, audio/subtitle language, and angle
- Player information such as repeat play, play mode, marker, Virtual Surround Sound, etc.

Common procedures

Press **DISPLAY** button during Play or in the STOP mode.
Each time this button is pressed, the following display sequence appears on-screen:



1. Press the cursor buttons ◀▶ to select the preferred item. The selected item is indicated by the yellow frame on the On-Screen Menu Icons.
2. Press the cursor buttons ▲▼ to select the preferred setting. For some items, the selection will be registered immediately; for others, **ENTER** or **PLAY** must be pressed. When numbers are displayed in the on-screen menus, the numeric buttons are also effective for selecting instead of the cursor buttons (▲▼).
3. Press RETURN or CANCEL to clear the three different styles for On-Screen Menu Icons.

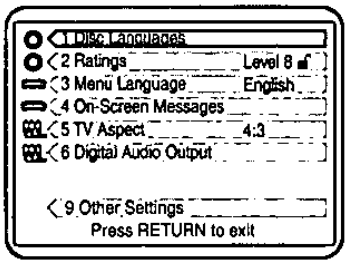
DVD Setup Menus

Using the DVD SETUP menus, you can pre-program the following choices:

1. Disc Languages
2. Ratings Level
3. Menu Languages
4. On-Screen Messages
5. TV Aspect
6. Digital Audio Output
7. Other Settings

Procedure

- Press the TV button on the remote control.
- Press **ACTION/ENTER** button to display the Main Menu.
- Press ▲▼ or ◀▶ button to highlight the DVD SETUP Icon.
- Press **ACTION/ENTER** button to display the DVD SETUP menu.
- Press **DVD** button on the remote control and stop the disc (if playing).
- Press the cursor buttons ▲▼ to select the preferred item and press **ENTER** to display the sub-menus of the preferred item.



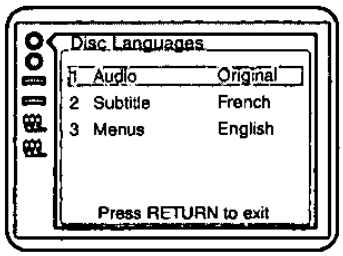
- Press **RETURN** repeatedly to exit menus.

Disc Languages

This menu selects the audio sound track language, sub-title language and the language used in the menus of DVD menus. The same settings will be used for every disc to be played back.

Procedure

- In DVD SETUP menu, press ▲▼ buttons to highlight DISC LANGUAGES.
- Press **ACTION/ENTER** button to display the sub-menu.
- Press ▲ or ▼ button to select the Audio, Subtitle or Menus.



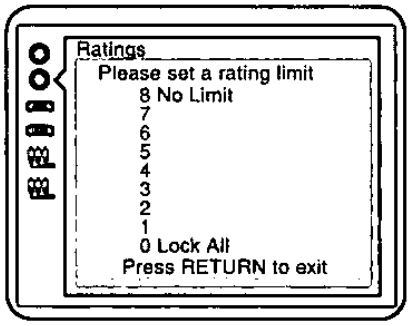
- Press **ACTION/ENTER** button to enter your selection.
- To select a non-listed language, select OTHER ****, then refer to the language codes in back of this manual.
- Press the **NUM** button, then use the 0~9 button to enter code.
- Press **CANCEL** if an incorrect language code is entered.
- Press RETURN to exit the Disc Languages sub-menu.

Ratings Level

The Ratings Level menu lets parents set a specified rating level. If the rating level of the disc is higher than the preset level, playback of the disc is prohibited.

Procedure

- In DVD SETUP menu, press ▲ or ▼ button to highlight Ratings.
- Press ACTION/ENTER button to display Ratings menu.
- Press ▲ or ▼ button to select the preferred rating level.
- Press **ACTION/ENTER** button to enter your selection.

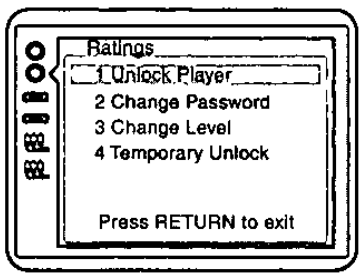


Following is the explanation of Rating Levels:

Level 8	All DVDs can be played back. (Factory preset)
Level 7 to 2	DVDs for general audiences/children can be played back. (DVDs for adults are prohibited.)
Level 1	DVDs for children can be played back. (DVDs for adults/general audiences are prohibited.)
Level 0 (Lock All)	Playback of DVDs are prohibited (e.g. playback of DVDs for adults which are not encoded with rating level information).

- When a level 7 or lower is selected, an on-screen display appears and prompts you enter a four digit code. Press **NUM** key and the 0 - 9 number keys on the remote control to enter the four digit code. Make sure to remember this code. You'll need to input this code to change the rating level if you decide later.
- Press **ENTER** to activate your rating level selection.

The rating is locked. Any disc whose rating is higher than the setting cannot be played back unless the correct password (4-digit code) is entered.
When the player is locked and you wish to play a DVD whose rating is different than the rating level you selected, enter the four digit secret code, press **ENTER**, and the following menu appears on the screen.

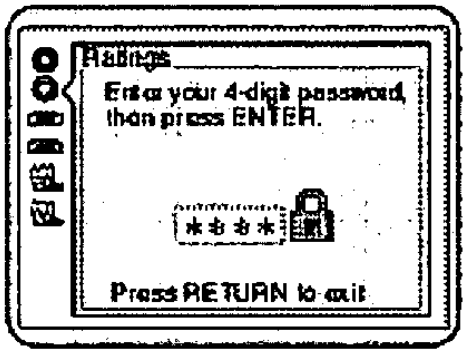


Rating Level (cont.)

To unlock the player follow the procedure below.

Procedure

- Highlight Unlock Player, then press **ENTER**.
- Highlight Change Password and press **ENTER**. Enter a new password and press **ENTER** twice.



Note: *Press NUM key and 0 - 9 number keys on the remote control to enter the four digit password.*

- Highlight Change Level and press **ENTER**.
- Select a new rating by using ▲ or ▼ button, then press **ENTER**.

To unlock the player temporarily

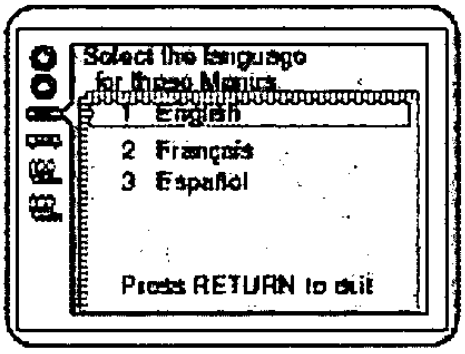
- Highlight Temporary Unlock and press **ENTER**. The player is unlocked temporarily only for the disc.

Selecting language of On-Screen display menus

This menu lets you to select the language to be used to display the on-screen menus.

Procedure

- In the DVD SETUP menu, press ▲ or ▼ button to highlight Menu Languages.
- Press **ACTION/ENTER** button to display the sub-menu.



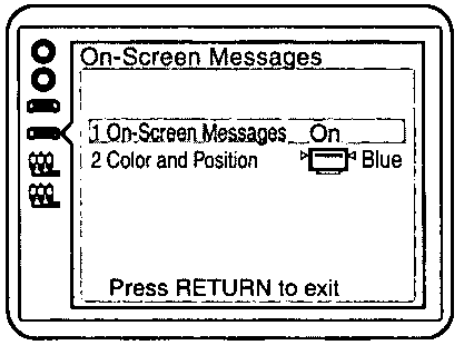
- Press ▲ or ▼ button to select English, Français or Español.
- Press **ACTION/ENTER** button. Initial setting menu is displayed.

On-Screen Messages

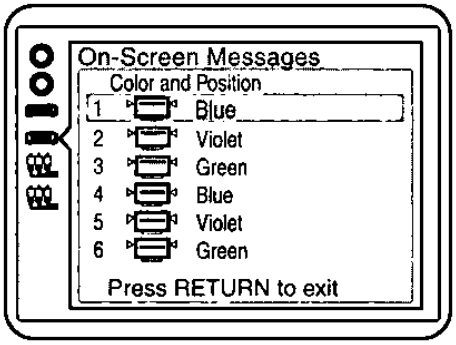
This menu lets you decide whether "Play", "Still"' and other on-screen displays will be displayed or not. It also lets you select the color and positioning of displays.

Procedure

- In the DVD SETUP menu, press ▲ or ▼ button to highlight On-Screen Messages.
- Press **ACTION/ENTER** button.The following sub-menu is displayed.



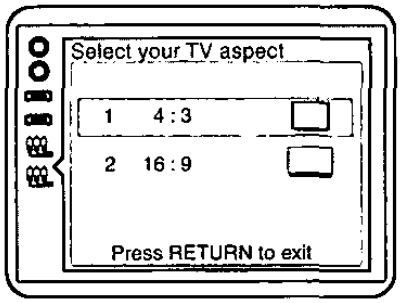
- Press ▲ or ▼ button to select the preferred item and press **ENTER**.
- If On-screen Message is highlighted, select On or Off.
- If Color and Position is selected, make your selection from the screen displayed on-screen.



- Press **ACTION/ENTER** button to enter your selection.
- Press RETURN to exit the menu.

TV Aspect

This menu lets you select the aspect ratio of your television. Select 4:3 (conventional TV) or 16:9 (wide screen).



Procedure

- In the DVD SETUP menu, press ▲ or ▼ button to highlight TV Aspect.
- Press **ACTION/ENTER** button to display the sub-menu.
- Press ▲ or ▼ button to select either 4:3 or 16:9.
- Press **ACTION/ENTER** button to enter your selection.

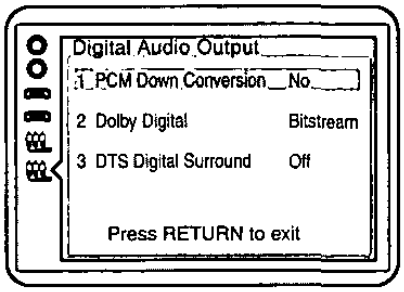
Note: *When AUTO ASPECT is ON and the TV Aspect is set to 16:9, a DVD disc in widescreen mode (squeeze or anamorphic widescreen) will be played back in vertical compressed 16:9 mode.*

Digital Audio Output

This menu lets you select the digital output to be outputted from the optical digital audio output connector of the TV set.

Procedure

- In the DVD SETUP menu, press ▲ or ▼ button to highlight Digital Audio Output.
- Press ACTION/ENTER button to display the sub-menu.



- Highlight PCM Down Conversion (Item 1). Press **ENTER** to display the sub-menu. Select either No or Yes.
- Press ACTION/ENTER button.
- Highlight Dolby Digital. Press **ACTION/ENTER** button to display Dolby Digital sub-menu.
- Select either Bitstream or PCM.

If Bitstream is selected, Dolby Digital bitstream (6 Ch) is output during playback of DVDs recorded in the Dolby Digital. (Factory preset)
Use this setting when the audio output is connected to the Dolby Digital Decoder.

Digital Audio Output (cont.)

If PCM is selected the digital audio is converted to PCM (2ch) of 48kHz/16 bit and is output during playback of DVDs recorded in the Dolby Digital.

- Press **ACTION/ENTER** button.
- Highlight DTS Digital Surround.
- Press **ACTION/ENTER** button to display sub-menu.
- Select either Off or Bitstream.

Off - No digital audio is output from the Dolby Digital output jack during playback of the DVDs recorded in DTS. (factory preset)

Bitstream - DTS bitstream is output from the Dolby Digital audio output jack during playback of the DVDs recorded in DTS. Select this setting when the player is connected to a DTS decoder.

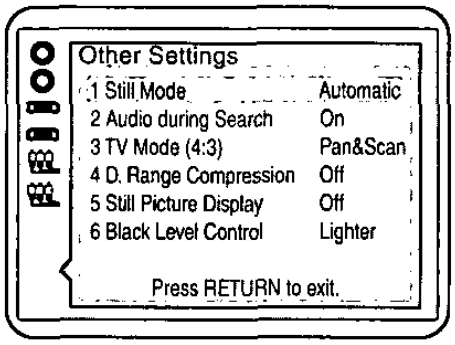
- Press **ACTION/ENTER**.

Other Settings

This menu lets you perform other special features of the DVD player.

Procedure

- In the DVD SETUP menu, press ▲ or ▼ button to highlight Other Settings.
- Press ACTION/ENTER button to display the sub-menus.



Still Mode

Lets you select Automatic, Field or Frame still. In Automatic mode, Field still and Frame still are automatically selected (Factory preset). Field still or Frame still prevents jittering from occurring or let the small text or fine patterns seen clearly in the still picture mode.

Audio During Search

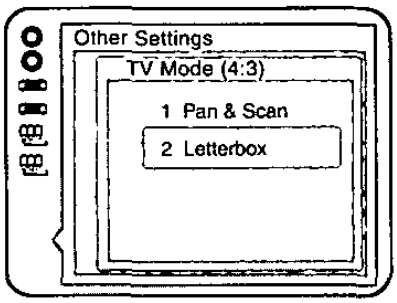
This menu lets you decide whether you want hear the audio during search at the initial scan speed.

Procedure

- In the Other Settings menu, press ▲ or ▼ button to highlight Audio During Search.
- Press **ACTION/ENTER** button to display the sub-menu.
- If you wish to hear audio during initial search, select On.
- If you do not wish to hear the audio during initial search, select Off.
- Press **ACTION/ENTER** button after you have made the choice.

Other Settings (Cont.)

TV Mode
Select either Pan & Scan or Letterbox.
Pan & Scan: The video material for a wide-screen will be played back in the Pan & Scan style on a conventional television.
Note: *Video material not formatted in the Pan & Scan style will be played back in the letterbox style.*
Letterbox: The video material for a wide-screen will be played back in the letterbox style with black bars top and bottom on the screen.



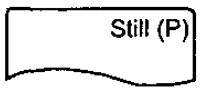
D. Range Compression
Select D.(Dynamic) Range Compression Off or On.

Off mode is selected to hear the normal audio range.
On mode is selected to listen to dynamic sound even on low volume. Dynamic range is the difference in volume between the quietest and loudest sounds heard. Dynamic compression limits the level for listening at low volume. This is useful late at night, for example.

Note: *This function only works with Dolby Digital DVD.*

Still Picture Display
This menu is used to select the type of still picture displayed on the screen. Select either Off or On.
If **Off** mode, the picture type (I/P/B) will not be displayed on the TV screen in the still picture mode. (Factory preset)
If **On** mode is selected, the picture type (I/P/B) will be displayed on the TV screen in the still picture mode.

For your reference:
When On is selected in the Still Picture Display, the following screen is displayed in the still picture mode.



Example: in the case of the P-Picture

Explanation of I/P/B

The MPEG 2 standard adopted for DVD uses the following 3 picture types for the coding of each picture (frame) on the TV screen.

- **I-Picture (Intra coded picture)**

This is the standard picture type, and each picture is coded separately. Since it features the best picture quality, it is recommended that the screen be frozen with I-Picture when the picture quality is to adjusted.

- **P-Picture (Predictive coded picture)**

This picture type is computed on the basis of a past I-Picture or P-Picture.

- **B-Picture (Bidirectionally-predictive coded picture)**

This picture type is computed by comparing the previous and subsequent I-Picture or P-Picture. It has the lowest volume of information.

Black Level Control

This menu lets you select the black level of the picture, "Lighter" or "Darker".

Procedure

- In Other Settings menu, press ▲ or ▼ button to select Black Level Control.
- Press ACTION/ENTER button to display the sub-menu.
- Press ▲ or ▼ button to select either Lighter" or "Darker".
- Press **ENTER**.
- Press **RETURN** repeatedly to exit the DVD SETUP menu.

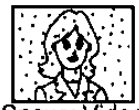
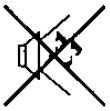
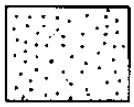
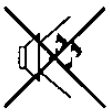
LANGUAGE CODE LIST

Enter the appropriate code number for the initial settings "Audio", "Subtitle" and/or "Menus".

Code	Language	Code	Language	Code	Language	Code	Language
6565	Afar	7079	Faroese	7678	Lingala	8375	Slovak
6566	Abkhazian	7082	French	7679	Laothian	8376	Slovenian
6570	Afrikaans	7089	Frisian	7684	Lithuanian	8377	Samoan
6577	Ameharic	7165	Irish	7686	Latvian, Lettish	8378	Shona
6582	Arabic	7168	Scots Gaelic	7771	Malagasy	8379	Somali
6583	Assamese	7176	Galician	7773	Maori	8381	Albanian
6588	Aymara	7178	Guarani	7775	Macedonian	8382	Serbian
6590	Azerbaijani	7185	Gujarati	7776	Malayalam	8385	Sundanese
6665	Bashkir	7265	Hausa	7778	Mongolian	8386	Swedish
6669	Byelorussian	7273	Hindi	7779	Moldavian	8387	Swahili
6671	Bulgarian	7282	Croatian	7782	Marathi	8465	Tamil
6672	Bihari	7285	Hungarian	7783	Malay	8469	Telugu
6678	Bengali, Bangla	7289	Armenian	7784	Maltese	8471	Tajik
6679	Tibetan	7365	Interlingua	7789	Burmese	8472	Thai
6682	Breton	7378	Indonesian	7865	Nauru	8473	Tigrinya
6765	Catalan	7383	Icelandic	7869	Nepali	8475	Turkmen
6779	Corsican	7384	Italian	7876	Dutch	8476	Tagalog
6783	Czech	7387	Hebrew	7879	Norwegian	8479	Tonga
6789	Welsh	7465	Japanese	7982	Oriya	8482	Turkish
6865	Danish	7473	Yiddish	8065	Panjabi	8484	Tatar
6869	German	7487	Javanese	8076	Polish	8487	Twi
6890	Bhutani	7565	Georgian	8083	Pashto, Pushto	8575	Ukrainian
6976	Greek	7575	Kazakh	8084	Portuguese	8582	Urdu
6978	English	7576	Greenlandic	8185	Quechua	8590	Uzbek
6979	Esperanto	7577	Cambodian	8277	Rhaeto-Romance	8673	Vietnamese
6983	Spanish	7578	Kannada	8279	Romanian	8679	Volapük
6984	Estonian	7579	Korean	8285	Russian	8779	Wolof
6985	Basque	7583	Kashmiri	8365	Sanskrit	8872	Xhosa
7065	Persian	7585	Kurdish	8368	Sindhi	8979	Yoruba
7073	Finnish	7589	Kirghiz	8372	Serbo-Croatian	9072	Chinese
7074	Fiji	7665	Latin	8373	Singhalese	9085	Zulu

Troubleshooting Chart - TV

Before calling for service, determine the symptoms and follow suggested solutions.

AUDIO	VIDEO	Solutions
Noisy Audio	 Snowy Video	Adjust Antenna Location and Connection
Noisy Audio	Multiple Image	Adjust Antenna Location and Connection Check Antenna Lead-in Wire
Noisy Audio	Interference	Move TV from Electrical Appliances, Lights, Vehicles, and Medical Equipment
 No Audio	Normal Video	Increase Volume Check Mute Check TV SPEAKERS on/off Change Channel
Noisy Audio	 No Video	Set TV or Cable Mode Properly Check Antenna Cables
 No Audio	No Video No PIP	Check Power Cord is Plugged into Active Outlet Adjust Brightness and Audio Controls Change Channel Check Cable Connections Program the Remote Control Again Check Second Video Source Operation
Normal Audio	No Color	Adjust Color Settings Change Channel
Wrong Audio	Normal Video	Check Audio Is Set To Stereo Or Mono, Not SAP
Normal Audio	Normal Video	Replace Remote Control Batteries
Intermittent Remote Control Operation		

Troubleshooting Chart - DVD

Before calling for service, determine the symptoms and follow suggested solutions.

SYMPTOMS	Solutions
Play fails to start even after PLAY is pressed. Play starts but then stops immediately.	This player cannot play a disc other than DVD, VIDEO CD and CD. The disc may be dirty and may require cleaning. Make sure that the disc is installed with the label side facing up.
Play does not start even when title is selected.	Check the Ratings level setting. The disc has a different rating than the one selected in the DVD SETUP menu.
No sound.	Make sure that the TV speakers are turned On. If connected to stereo systems, check all the connections and check the amplifier's input selection.
Picture distorted during rapid advance or rapid reverse.	The picture will be somewhat distorted at times: this is normal.
No key operation (by the controls on the TV set or remote control unit) is effective.	Some operations may be prohibited by the disc.
No 4:3 (16:9) picture.	Choose the correct TV aspect from the DVD SETUP menu.
No on-screen display.	The "Off" setting is selected for On-screen Messages. Select "On" to view the On-screen Messages.
No subtitles	Subtitles appear only with discs containing them. Subtitle option turned Off. Select "On" from subtitle sub-Menu.
Angle cannot be changed.	This function dependent on software availability. Even if a disc has a number angles recorded, these angles are for specific scenes only.
Audio sound track and/or subtitle language is not the one selected at the initial settings.	If the audio sound track and/or subtitle language does not exist on the disc, the language selected at the initial settings will not be seen or heard.
No subtitles	Subtitles appear only with discs containing them. Subtitles option turned "Off". Select "On" from sub-title sub-menu.

NOTES

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